

H/A

Notice of Allowability

Application No.

10/784,514

Examiner

ANH PHUNG

Applicant(s)

SMITH ET AL.

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☒ The drawings filed on 23 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/23/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search History.

Anh Phung
ANH PHUNG
PRIMARY EXAMINER

DETAILED ACTION

1. In response to the U.S. Patent Application Ser. No. 10/784,514 filed on Feb. 23, 2004, claims **1-25** are pending in the application.

Examiner's amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The specification has been amended as follows:

Paragraph [0001], after "July 7, 2003," insert -- **now U.S. Pat. No. 6,865,108, issued on Mar. 8, 2005, --**.

The examiner's amendment has been made in order to place the application in a condition for allowance.

Information Disclosure Statement

3. This office acknowledges receipt of the following items from the Applicant:
Information Disclosure Statements (IDS) filed on Feb. 23, 2004.
Information disclosed and listed on PTO 1449 was considered.

Examiner's Statement of Reasons for Allowance

4. Claims **1-25** are allowed.

Sharma et al. (US 6,754,097), Baker (US 6,741,490), Hirai (U.S. Pat. No. 6,724,651), Lu et al. (US 6,522,576), Thewes et al. (US 6,487,109) and Hoffmann et al.

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(US 6,388,917) disclose an MRAM memory device similar to that of the present application, but fail to teach:

“a circuit coupled to a node between the first MRAM cell and the second MRAM cell, the circuit configured to detect a voltage change at the node in response to a voltage being provided to the memory cell string and in response to a write sense current being applied across the first MRAM cell” as claimed in the independent claim **1**;
or

“providing a voltage to the memory cell string; measuring a first voltage at a node between the first and second memory cells; applying a write sense current across the first memory cell; measuring a second voltage at the node; and determining whether the first voltage differs from the second voltage” as claimed in the independent claim **12**; or

“a transistor coupled to a node between the first and second memory cells and coupled to a bit line associated with the first memory cell; a means coupled to the bit line for detecting a voltage change at the node in response to: a first voltage being provided to the first and second memory cells; a write sense current being applied on the bit line; and a second voltage being provided to the transistor” as claimed in the independent claim **18**.

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comment on Statement of Reasons for Allowance”.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANH PHUNG** whose telephone number is **(571) 272-1883**. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD ELMS**, can be reached on **(571) 272-1869**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

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**ANH PHUNG
PRIMARY EXAMINER**